EnGenius

Datasheet

EGS7228FP

24-Port Gigabit PoE+ Layer 2 Managed Switch

with 4 Dual-Speed SFP

Cost-effective, simple-to-use networking solutions for small-to-medium businesses

Key Features

- 24 Gigabit PoE+ Ports, IEEE802.3at/af support
- 4 SFP slots for longer connectivity via fiber uplinks and for uplink redundancy and failover
- Internal Power Supply with 370 W PoE Budget
- IGMP and MLD snooping provides advanced multicast filtering
- IEEE802.3ad Link Aggregation
- STP/RSTP/MSTP
- Access Control List/ Port Security
- IEEE802.1X and RADIUS Authentication
- RMON
- SNMP v1/v2c/v3
- Optional Power PoE Booster (RPS370) available (Purchased separately)
- Voice VLAN for fast and reliable deployment of VoIP
- Solid performance with non-blocking architecture with 56 Gbps switching capacity
- Supports PoE+ on all ports, providing flexibility to add power-hungry devices such as video phone, IP camera and wireless APs
- Energy Efficient Ethernet (IEEE802.3az) support for better energy saving when more EEE-compliant end devices are available in the market
- Advanced QoS with IPv4/IPv6 ingress traffic filtering (ACLs) and prioritization
- Easy to manage via Web-Based Management GUI for switch deployment
- Standard-based technology, ensuring interoperability with any standard-based devices in the existing network
- Dual firmware images, improving reliability and uptime for your network

The EGS7228FP is a full featured Gigabit Ethernet switch with comprehensive Layer 2 switching capabilities and PoE+ support. It provides 24 Gigabit ports that support IEEE802.3at/af PoE+, and 4 SFP slots for fiber transceivering that can extend the reach of the network beyond the limitation of Ethernet cabling. With rich Layer 2 management features, the EGS7228FP allows quick deployment and simplified maintenance as well as seamless upgrades, making it the ideal networking solution for businesses looking for the best combination of features, performance and value.

Equipped with Rich Layer 2 Features

The EnGenius Layer 2 switch includes IGMP Snooping, MLD Snooping, Port Mirroring, Rapid Spanning Tree, Multiple Spanning Tree, Spanning Tree, VLAN group, Voice VLAN, ACL, 802.1X port security, SNMP v1/v2c/v3 and IEEE802.3ad Link Aggregation Control Protocol (LACP). The EGS7228FP includes 24 Gigabit PoE (10/100/1000 Mbps) ports and four SFP (copper/hot-swappable small form-factor pluggable) Gigabit ports for optional fiber connectivity. IT managers or VARs who are expanding network deployments for businesses, schools, resorts and hotels, or other expansive venues can expect superior performance and reliability at a price point that is much more attractive than from larger, more enterprise-focused network brands.

This high-performing switch also features a non-blocking wire-speed architecture with a 56 Gbps switching capacity for maximum data throughput. The IEEE 802.3x Flow Control function allows servers to directly connect to the switch for fast, reliable data transfer. Network maintenance features include Spanning Tree and Cable Diagnostics.

Easy Network Management and Visibility

This EnGenius Layer 2 Switch is designed for easy network management and can quickly be added to an existing rack of other branded L2 and L3 switches. Configuring the switch is made through an intuitive and user-friendly Web interface for quick and easy management. The EnGenius L2 switch also includes SNMP (v1, v2 and v3) to collect and track data to monitor network health, manage devices, and more easily enforce critical IT controls and policies. The switch's Link Layer Discovery Protocol (LLDP) feature allows it and other network devices connected to it to announce and display their identity and capabilities on the local network, which helps IT managers better manage, troubleshoot or correct issues that may arise on the network.

VLAN and Voice VLAN

The EGS7228FP provides 802.1Q VLAN support for improved convergence and bandwidth utilization. The switch automates the process of setting up VoIP devices on a network. Voice VLAN guarantees clear quality and efficient transmission for all voice communications. VLANs also provide a means of securing each broadcast domain, segregating them from each other. VLANs can be configured to segment departmental resources. VLANs implemented on an SMB network help to restrict access to sensitive information from one department to another.

Multicast Support

The EGS7228FP supports IGMP Snooping, MLD Snooping, and VLAN for multicast applications. By passively snooping IGMP packets transferred between the switch and the IP multicast host, registration information is recorded and sorted into multicast groups. The switch can then intelligently forward traffic to only those ports that request multicast traffic. MLD Snooping enhances efficiency in selective distribution by forwarding IPv6 multicast data to receiving ports, rather than flooding all ports in a VLAN.

IGMPv1—Defined in RFC 1112. An explicit join message is sent to the switch, but a timeout is used to determine when hosts leave a group.

IGMPv2—Defined in RFC 2236. Adds an explicit leave message to the join message so that the switch can more easily determine when a group has no interested listeners on a LAN.

IGMPv3—Defined in RFC 3376. Support for a single source of content for a multicast group.

QoS for Smoother Video Conferences and Clearer Phone Calls

Priority queueing ensures high-priority traffic gets delivered efficiently, even during congestion from high traffic bursts. The ability to prioritize traffic ensures quality of latency-sensitive services and applications despite increasing traffic loads. For mission critical environments, the EGS7228FP supports 802.1D, 802.1w and 802.1s Spanning Tree Protocols (STP). STP allows you to configure the switch with a redundant backup bridge path, so transmission and reception of packets can be guaranteed in the event of any failed switch on the network. To help streamline networks, 802.1p Priority Tagging places a priority tag in a specified frame placing it in a priority queue once received and enabling it to be prioritized ahead of other frames. IEEE 802.1p enables administrators to assign and designate traffic priority. This process helps applications such as VoIP and video conferencing to be delivered clear and jitter-free.

Making the Network More Secure

The EGS7228FP also supports 802.1X port-based authentication, so IT managers can authenticate clients via external RADIUS servers. In addition, the Access Control List (ACL) feature enhances network security and protects the network by screening traffic from unauthorized MAC or IP addresses.

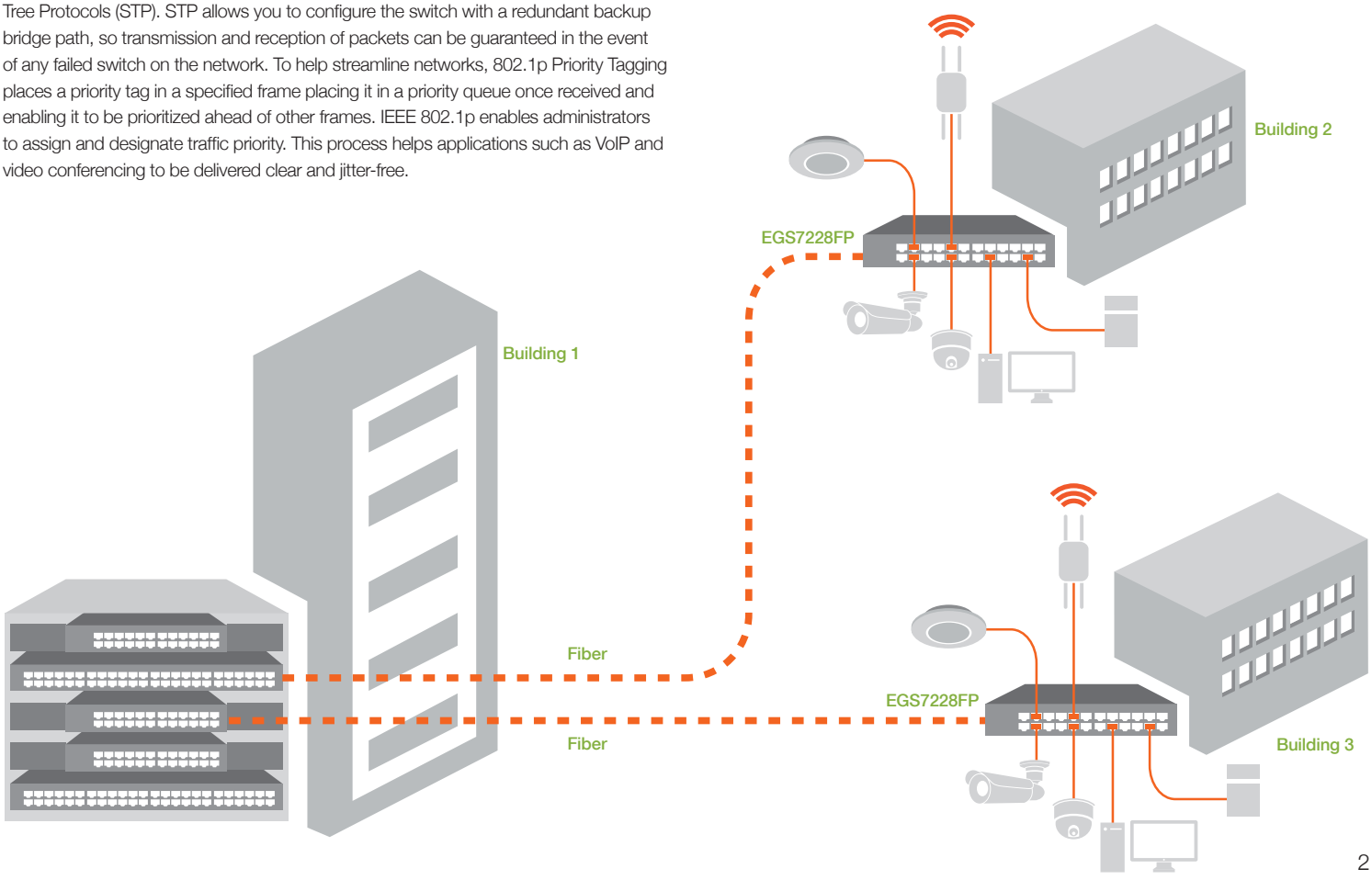
Energy Saving

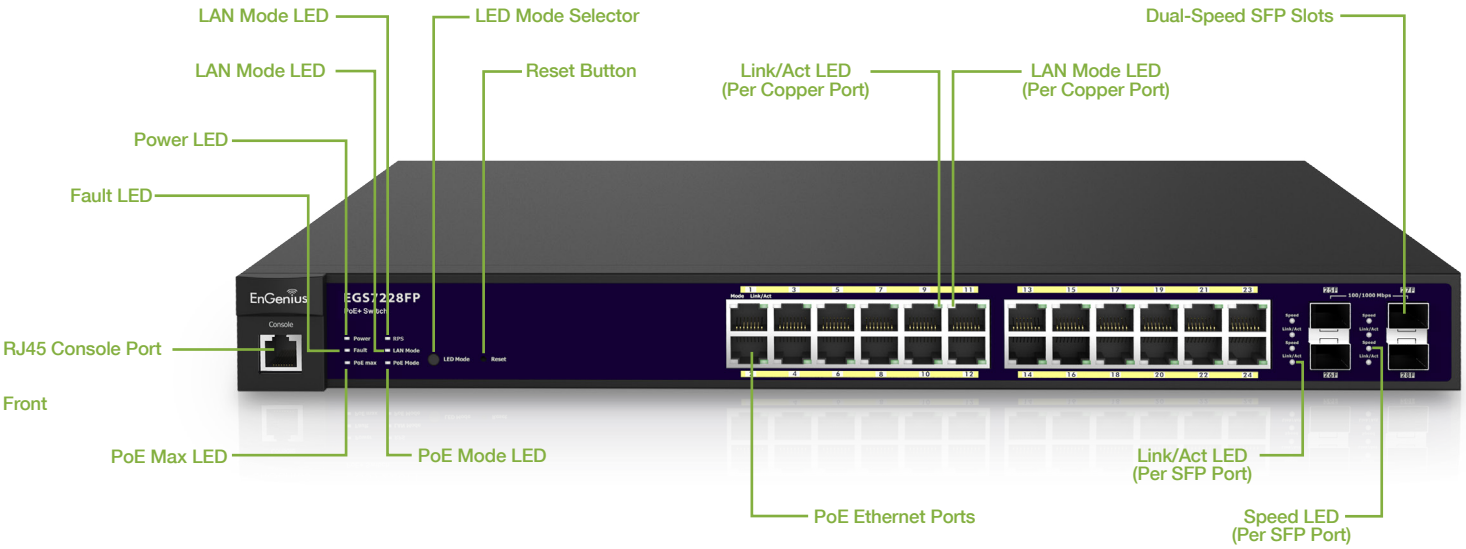
This EnGenius Layer 2 Switch is capable of conserving power without sacrificing operational performance. With the Energy Efficient Ethernet (EEE) standard, the network will automatically decrease its power usage when traffic is low with no setup required. The PoE Management feature lets IT managers control the PoE on each port so that unnecessary power consumption can be saved during off hours. The switch can also detect the length of connected cables to automatically reduce power usage on shorter cable connections.

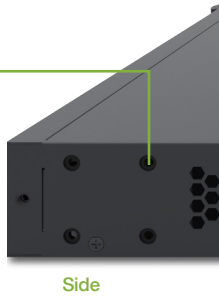
Power over Ethernet (PoE)

With a total power budget of 370 Watts for the EGS7228FP, customers can choose to plug in up to 24 802.3at/af IP-based devices. Power-over-Ethernet (PoE) optimizes the installation and power management of network devices such as wireless Access Points (APs), Voice over IP (VoIP) phones, and IP-based surveillance cameras. In addition, the EGS7228FP's Power-over- Ethernet (IEEE 802.3at/af) capabilities reduce installation time and costs for many new network productivity devices. Free your wireless AP deployments and IP cameras from the restrictions of power outlet proximity using a standard Cat 5 cable.

The EGS7228FP provides 24 Gigabit ports that support 802.3at/af compliant PoE, PoE client devices like wireless Access Points and video-capable VoIP phones that require more power to operate. The switch can have a total power budget of 740 watts with an optional external PoE power supply booster (RPS370 - *sold separately*). Together the EGS7228FP is capable of supplying a total PoE power budget of up to 740 watts.







Specifications

Standards

General Features
Switching Capacity: 56Gbps
Forwarding Mode: Store and Forward
SDRAM: 256MB
Flash Memory: 32MB

Port Functions
24 10/100/1000Mbps Ports
4 100/1000Mbps SFP Slots
1 RJ45 Console Port

PoE Capability
PoE Standard: supports IEEE 802.3af/at
PoE Capable Ports: Port 1-24 output up to 30W
Total PoE Power Budget: 370Watts

LED Indicators

Device			
Power LED	Fault LED	PoE Max LED	RPS LED
LAN Mode LED	PoE Mode LED		

Copper Ports	
LAN/PoE Mode	Link/Act

SFP Ports
Speed, Link/Act

L2 Features

IEEE802.3ad Link Aggregation
Port Mirroring

Spanning Tree Protocol
802.1D Spanning Tree (STP)
802.1w Rapid Spanning Tree (RSTP)
802.1s Multiple Spanning Tree (MSTP)

IGMP Snooping v1/v2/v3
IGMP Fast Leave
MLD Snooping
VLAN Group
Voice VLAN

Queue	
CoS based on 802.1p Priority	CoS based on Physical Port
CoS based on TOS	CoS based on DSCP

IEEE802.1X Port-based Access Control
IEEE802.1X Guest VLAN
Port Security
Storm Control
Port Isolation
Attack Prevention
Access Control List (ACL)

PoE Management	
Power on/off per port	Power class configuration
Power feeding with priority	User defined power limit

SSH Server
Telnet Server
TFTP Client
BootP/DHCP Client
SNMP v1/v2c/v3 support
TFTP Upgrade
Command Line Interface (CLI)
SNTP
RMONv1
SYSLOG
Cable Diagnostics

MIB Support			
RFC1213	RFC1493	RFC1757	RFC2674

Environmental & Mechanical

Temperature Range
Operating: 32°F to 132°F / 0 to 50°C
Storage: -40 to 158°F / -40 to 70 ° C

Humidity
5 - 95% non-condensing

Weights & Measures
Dimension (W x D x H): 17.3”x 13.8”x 1.7” / 440 mm x 350 mm x 44 mm

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Maximum data rates are based on IEEE 802.3ab standards. Actual throughput and range may vary depending on distance between devices or traffic and bandwidth load in the network. Compliant with FCC - This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.